

TYPHOON FAYE

BEST TRACK TC-23W

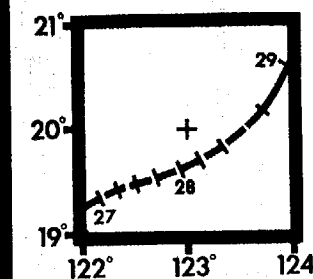
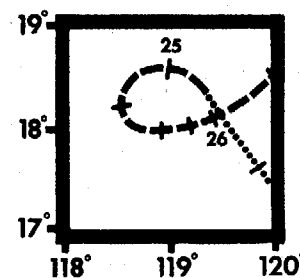
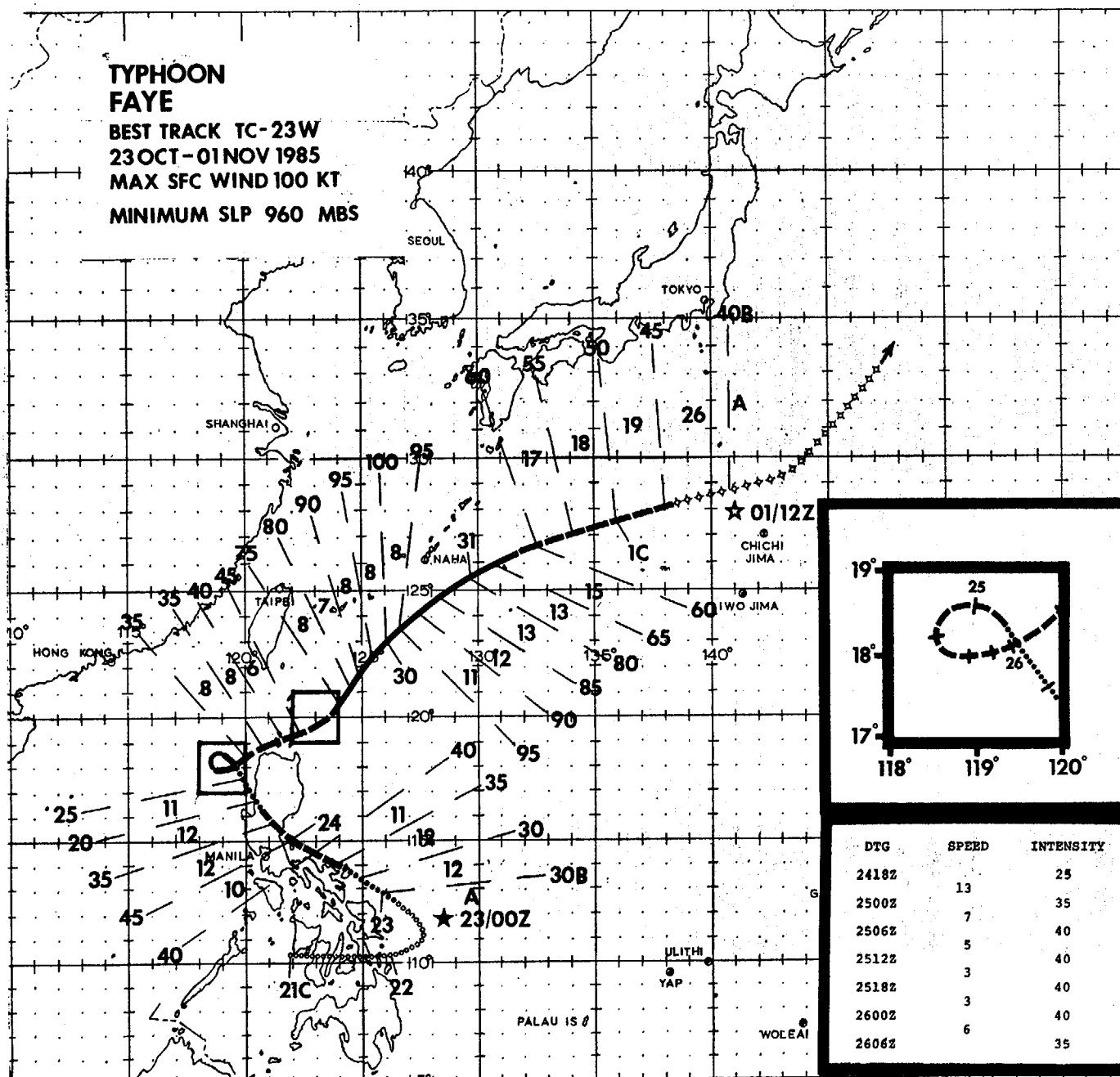
23 OCT - 01 NOV 1985

MAX SFC WIND 100 KT

MINIMUM SLP 960 MBS

LEGEND

- 06 HOUR BEST TRACK POSIT
- A SPEED OF MOVEMENT
- B INTENSITY
- C POSITION AT XX/0000Z
- ... TROPICAL DISTURBANCE
- ... TROPICAL DEPRESSION
- TROPICAL STORM
- TYPHOON
- ◆ SUPER TYPHOON START
- ◇ SUPER TYPHOON END
- ◇◇ EXTRATROPICAL
- ... DISSIPATING STAGE
- ★ FIRST WARNING ISSUED
- ☆ LAST WARNING ISSUED



DTG	SPEED	INTENSITY
2418Z		25
2500Z	13	35
2506Z	7	40
2512Z	5	40
2518Z	3	40
2600Z	3	40
2606Z	6	35

DTG	SPEED	INTENSITY
2700Z		45
2706Z	2	50
2712Z	2	50
2718Z	2	50
2800Z	3	50
2806Z	4	55
2812Z	5	60
2818Z	5	65
2900Z		75

Faye was the last of four tropical cyclones to form in October, a month that normally accounts for five. Its formation was unusual because it was masked by two other tropical cyclones already in progress.

To set the stage, on 21 October Super Typhoon Dot was moving from the South China Sea into North Vietnam. The low-level southwesterly flow, that had been feeding into Dot, extended across the South China Sea into the Philippine Islands. A day later - with Dot over land and dissipating - a fresh outbreak of polar air from the northeast moved across the northern South China Sea and Philippines. The low-level convergence and cloudiness associated with the southwesterly monsoon flow persisted in the southern Philippine Islands - (this was the start of Faye). To the east in the Philippine Sea the remnants of Ellis were embedded in the western end of the near-equatorial trough. Ellis had been finalled at (200600Z). Although devoid of central cloudiness, it still retained some cyclonic vorticity. As the remnants of Ellis drifted west-northwestward, satellite imagery at 221200Z revealed a resurgence of its central convection. This renewed activity resulted in the issuance of two Tropical Cyclone Formation Alerts (TCFA) at 211200Z and 220300Z. The remains of Ellis, however, did not regenerate.

In conjunction with the continued interest in Ellis, an aircraft reconnaissance investigation mission was scheduled for the daylight hours on the 23rd of October. It located east-southeasterly winds at 10 kt (5 m/s) and a MSLP of 1009 mb associated with the TCFA area; however, as the flight continued to the west, it discovered 35 kt (18 m/s) winds and a MSLP of 1004 mb associated with another circulation. This prompted the first warning on Tropical Depression 23W at 230000Z. Up to this time there had been no mention of this new system in either the Significant Tropical Weather Advisory (ABPW PGTW) or the TCFA associated with Ellis. The tropical depression, once identified, moved northwestward under the subtropical ridge and slowly intensified. It reached tropical storm intensity at 231200Z. Later (240300Z), Tropical Storm Faye made landfall over central Luzon 60 nm (111 km) northeast of Manila (WMO 98429) with an intensity of 40 kt (21 m/s). Faye tracked to the northwest across Luzon in 9 hours and entered the South China Sea as a 20 kt (10 m/s) tropical depression some 130 nm (241 km) north-northwest of Manila. During the next 12-hours, Faye re-intensified over open water and moved on to the northwest. As a consequence of this northwesterly movement, Hong Kong (WMO 45005) went to Tropical Cyclone Condition of Readiness III at 250303Z.

Although, the system was forecast to move slowly to the northwest and intensify, the presence of a mid-latitude trough over mainland China changed that scenario. Faye was upgraded to tropical storm intensity late on the 24th and slowed further. Actually, satellite, radar and two aircraft reconnaissance fixes confirmed that the system completed a small cyclonic loop between 241800Z and 251800Z. Then Faye turned northeastward and accelerated through the Luzon Straits. Aircraft reconnaissance peripheral data between 262100Z and 270000Z showed the maximum surface winds to be in the northeastern semicircle. This was due to the increased pressure gradient between the low central pressure of Faye and the ridge to the northeast over Japan. For the next two days, after moving from the Straits, Faye slowed again, covering only 140 nm (259 km). The slowing trend was accompanied by intensification. Faye became a typhoon at 281800Z.

With Typhoon Faye approaching, Kadena AB on the island of Okinawa set Tropical Cyclone Condition of Readiness III (at 290900Z), and Condition II at 300310Z. During this period Typhoon Faye was at its maximum intensity of 100 kt (51 m/s) and beginning to accelerate to the northeast (see Figure 3-23-1). The closest point of approach to Kadena AB was 90 nm (167 km) to the southeast at 301900Z. Even though Faye's intensity at this time was 85 kt (44 m/s), the maximum observed winds at Kadena AB were only 18 kt (9 m/s).

After passing south of the island of Okinawa, Typhoon Faye continued to decrease in intensity due to the increased strength of the upper-level westerlies and the associated vertical wind shear. At 311200Z, 17 hours after its closest point of approach to Okinawa, Typhoon Faye was downgraded to a tropical storm. Faye continued accelerating to the east-northeast and transitioned to an extratropical low with an intensity of 45 kt (23 m/s) six hours before the final warning at 011200Z.

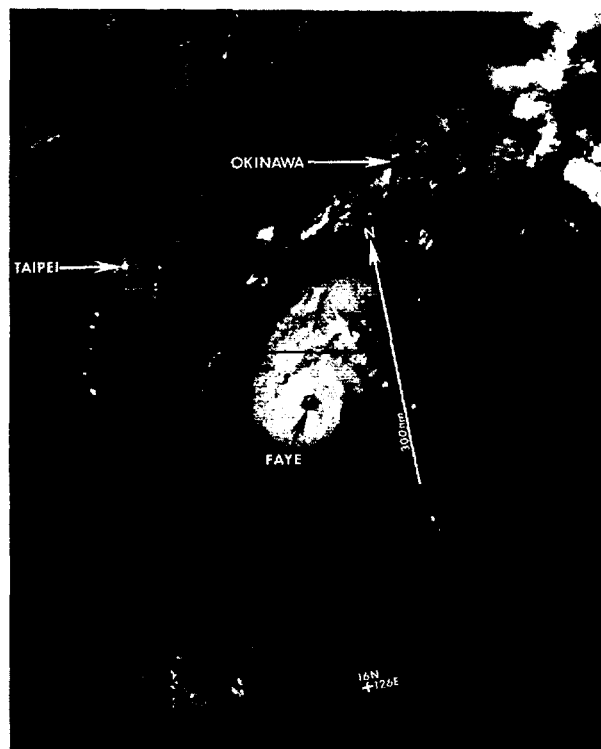


Figure 3-23-1. Nighttime moonlight imagery of Typhoon Faye one day after reaching typhoon intensity. Because this is a low-light-level image, the bright city lights along the west coast of the island of Taiwan can be seen to the west of the Tropical Cyclone [291346Z October DMSP visual imagery].